

THE GENUS *CRYPHAEUS* KLUG, 1833 IN AUSTRALIA, WITH
DESCRIPTION OF A NEW SPECIES (COLEOPTERA:
TENEBRIONIDAE: TOXICINI)

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Abstract

Cryphaeus wachteli sp. n. (Australia: NSW and Qld) is described and compared with its Melanesian congeners. The previously suggested occurrence of *C. chevrolati* (Montrouzier, 1855) in Australia is discussed and regarded as based on mislabelled specimens.

Introduction

The tribe Toxicini is subdivided into the subtribes Eudysantina, Nycteropina, and Toxicina (Bouchard *et al.* 2005). In Australia the Eudysantina and Toxicina are represented (Matthews and Bouchard 2008). The subtribe Toxicina includes the two genera *Toxicum* Latreille, 1802 and *Cryphaeus* Klug, 1833. According to Merkl (1989), in *Cryphaeus* the eyes are completely divided by the epistomal canthi and the head of males has two glabrous supraorbital horns and lacks epistomal horns. In *Toxicum* the eyes are not completely divided and males are equipped with two supraorbital horns fringed with yellow hairs as well as epistomal horns. Recently, Schawaller (2006) described a *Cryphaeus* species with epistomal horns from South Africa and concluded that *Cryphaeus* is perhaps a junior subjective synonym of *Toxicum* but, according to him, the problem needs to be studied in greater detail.

Toxicum is listed for Australia by Carter (1926), Doyen *et al.* (1989) and Matthews and Bouchard (2008) but none of these standard works cite the genus *Cryphaeus* from the continent. However, according to Merkl (1989) *Cryphaeus* is widely distributed in the Palearctic, Afrotropical and Indomalayan realms as well as Melanesia and Australia. For Australia, Merkl (1989) mentioned 'unidentified specimens belonging probably to new species' and cited specimens of *C. chevrolati* (Montrouzier, 1855) in HNHM from 'northern Queensland'. Fieldwork by Franz Wachtel (Egling, Germany) in New South Wales and Queensland yielded a new species of *Cryphaeus* which is described below. Examination of the Australian specimens in HNHM mentioned by Merkl (1989) showed that they belong to the same species. Additional specimens were found in the Australian National Insect Collection and the Queensland Museum.

The acronyms of the following depositories are given in parentheses: AM – Australian Museum, Sydney, Australia; ANIC – Australian National Insect Collection, Canberra, Australia; CRG – Collection Roland Grimm, Neuenbürg, Germany; HNHM – Hungarian Natural History Museum, Budapest, Hungary; QM – Queensland Museum, Brisbane, Australia; SMNS – Staatliches Museum für Naturkunde, Stuttgart, Germany.

Taxonomy

Cryphaeus wachteli sp. n.

(Figs 1-4)

Material examined. Holotype ♂, NEW SOUTH WALES: Macksville, i.[19]91, [F.] Wachtel (AM: K.349042). Paratypes: 2 ♀♀, same data as holotype (AM: K.349043 and K.349044), 3 ♀♀, same data as holotype (CRG), 1 ♀, same data as holotype (SMNS); 1 ♂, Maxville [sic], v.1981, [no collector stated] (HNHM); 1 ♂, Greta, ix.1951, J. Sedlaček (HNHM); 1 ♂, Araluen, 25.xi.1978, J. F. Lawrence, Lot 78-195, *Osmophorus latus* (ANIC); 1 ♂, Kangaroo Valley, 7.x.1986, C. Reid, at light (ANIC); 1 ♂, Sandy Creek Road, Braemar SF south of Casino, 16.x.1997, Watkins, 97:567, mv light in open forest; S.G. Watkins Collection, donated 2001 (ANIC). QUEENSLAND: 2 ♀♀, Mt Maroon, Border Range, i.[19]95, [F.] Wachtel (QM & CRG); 1 ♂, Brisbane [no date stated], J. Sedlaček (HNHM); 1 ♀, South Percy Island (Lagoon Area), 21°46'S 150°18'E, 25.xi.1992, rainforest, Monteith, Thompson & Janetzki, pyrethrum (QM); 1 ♀, Lever's Plateau, 18.iv.1964, D.F. O'Sullivan (QM); 1 ♂, N of Maryborough, Salt Water Creek, 29°29'S, 152°43'E, 11.viii.1986, R. Eastwood (QM); 1 ♀, Millmerran, 22.v.1966, H. Burton (QM); 1 ♀, Biggenden (25.31S 152.03E), under bark of blue gum, 13.viii.1972, H. Frauca (ANIC).

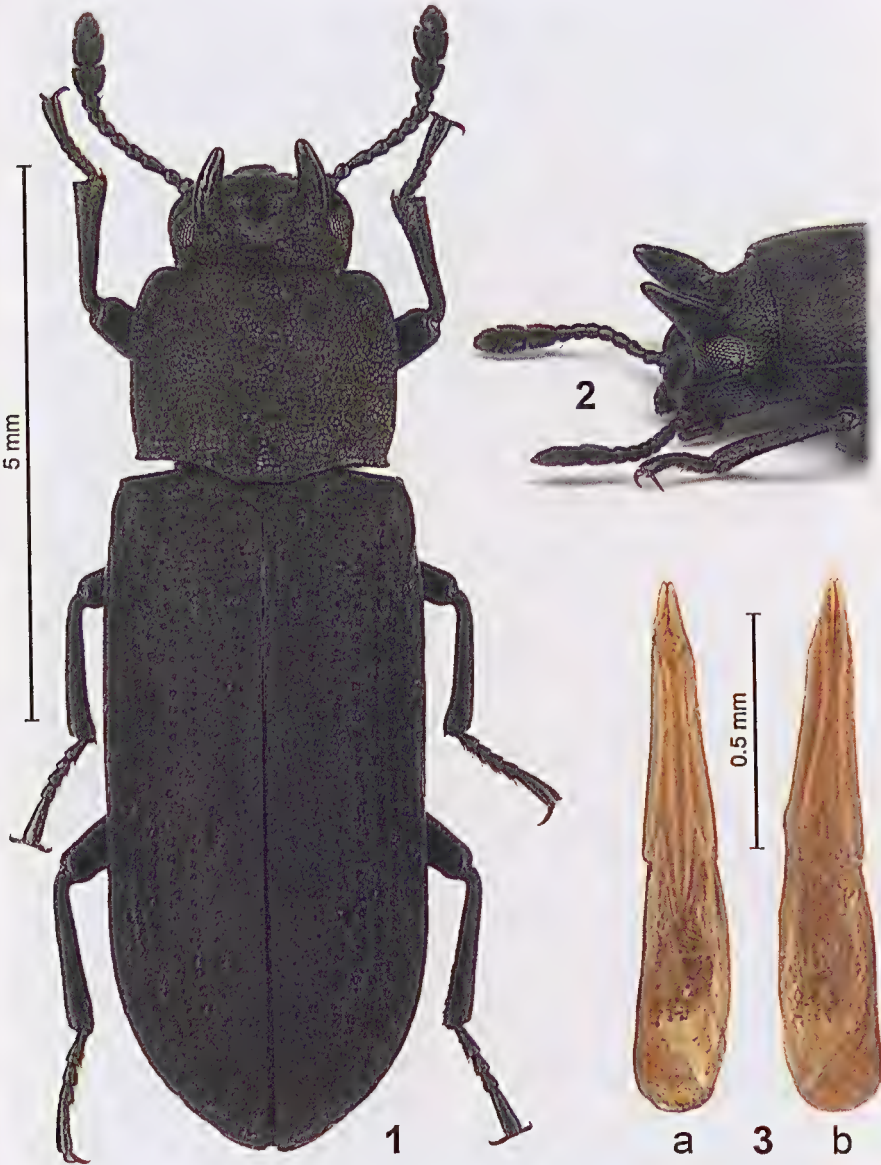
Description. Elongate-oblong, slender, subconvex transversally, dull black. Body length 8.2-10.9 mm, body width 2.5-3.5 mm. Head coarsely and densely punctured; distances among punctures somewhat smaller than their diameters; punctures of genae and epistoma smaller; epistoma nearly straight anteriorly, with weakly sinuate canthi. Antennal club 3-segmented; antennomere 9 nearly twice as wide as antennomere 8. Mentum subcordiform. Pronotum transverse, width/length ratio 1.18-1.25, moderately convex; sides subparallel, very weakly sinuate in the middle and before posterior angles; anterior angles rounded, not protruding beyond anterior margin; pronotal punctures coarse as on head, distances among them usually equal to puncture diameter. Elytra elongate, with regular rows of punctures. Ventral surface and legs without any modification.

Male (Figs 1-2). Supraorbital horns long, slightly incurved in frontal view, pointing forward in lateral view; they may be reduced to rather large tubercles. Cranial concavity punctures coarse and deep; distances among them various; shining. Aedeagus as in Fig. 3.

Female. Cranial surface between supraorbital swellings slightly concave, set with coarse punctures; distances among them various but mostly less than their diameters.

Differential diagnosis. According to Merkl (1989), five species of the genus *Cryphaeus* are known from the Melanesian region, of which *C. nudicornis* (Fairmaire, 1883) differs from *C. wachteli* sp. n. in having a 4-segmented antennal club. *Cryphaeus irregularis* (Gebien, 1920) and *C. vacca* Merkl, 1989 have a rather broad body and the rows of punctures on the elytra are irregular. *Cryphaeus chevrolati* has a conspicuous cinnabar-red pronotum

(often with a black marking along the midline) and *C. biroi* (Kaszab, 1939) is deep black with reddish legs and the anterior corners of the pronotum protrude beyond the anterior margin.



Figs 1–3. *Cryphaeus wachteli* sp. n.: (1-2) holotype: (1) dorsal; (2) head lateral. (3) aedeagus: (a) ventral; (b) dorsal.

Etymology. This species is named in honour of Franz Wachtel (Egling, Germany), one of the collectors of the type series.

Distribution. Coastal regions of NSW and southern Qld (Fig. 4).



Fig. 4. Distribution of *Cryphaeus wachteli* sp. n.

Discussion

As mentioned by Merkl (1989), in HNHM there are two females of *C. chevrolati* labelled from Northern Queensland: Endeavour River [no date or collector stated]. Evidently these specimens are mislabelled. No additional specimens of this conspicuous, bicoloured Melanesian species could be found in Australian museum collections, despite Australian museums having done an enormous amount of field work in North Queensland near the Endeavour River (Monteith pers. comm.). In discussing erroneous Australian records of the Melanesian phasmid *Eurycantha calcarata* Lucas, 1869, Monteith and Dewhurst (2011) pointed out that the Endeavour River was an early port of transshipment for exploratory ships carrying specimens back from New Guinea and other Melanesian islands and shipments sometimes received the name of the locality of transshipment port rather than their true origin.

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